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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/781,696

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Satoshi Takami

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EXAMINER

GILES, NICHOLAS G

ART UNIT

PAPER NUMBER

2622

NOTIFICATION DATE

DELIVERY MODE

04/30/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/781,696	<b>Applicant(s)</b> TAKAMI, SATOSHI	
	<b>Examiner</b> NICHOLAS G. GILES	<b>Art Unit</b> 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims **1, 4, and 8** have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 102*

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims **1-2, 4-6, and 8-10** are rejected under 35 U.S.C. 102(e) as being anticipated by Nagase (U.S. Patent No. 7,046,293).

Regarding claim **1**, Nagase discloses:

A method of reducing a power supply voltage which is supplied from a voltage regulator (switching controller 22, Q1, T, D1, D2, C11, C21, L1, L2, C12, C22 Fig. 1) to at least one particular circuit (timing generator 16 in camera 12 Fig. 1), said voltage regulator being configured to adjust its output voltage (15V at terminal 24a) by use of an external output voltage setting circuit (Q2, R1) connected thereto, a switching element (Q3 Fig. 1) being used to connect an output voltage setting terminal (24a) of said voltage regulator to a ground (through emitter of Q3) via a predetermined resistance (R2 Fig. 1), the method comprising: turning off the switching element so that the output voltage of said voltage regulator is set at a preset power supply voltage for enabling said at least one

particular circuit (4:20-53), the preset power supply voltage being a function of resistance values of the external output voltage setting circuit (Q2, R1, with Q2 acting as an open circuit); and turning on the switching element so that the output voltage of said voltage regulator is reduced to a predetermined voltage which is lower than the preset power supply voltage (4:54-5:18), the predetermined voltage being a function of resistance values of the external output voltage setting circuit (Q2, R1, Q2 operating state allowing R1 resistance).

Regarding claim **2**, see the rejection of claim 1 and note that Nagase further discloses:

Predetermined voltage is substantially equal to a reference voltage (ground) of said voltage regulator, the reference voltage being lower than an operating voltage of the at least one particular circuit (camera does not operate with 0V, 5:11-18).

Regarding claim **4**, Nagase discloses:

A power supply voltage reduction system for reducing a power supply voltage which is supplied to at least one particular circuit (timing generator 16 in camera 12 Fig. 1) from a voltage regulator (switching controller 22, Q1, T, D1, D2, C11, C21, L1, L2, C12, C22 Fig. 1), comprising: an output voltage setting circuit (Q2, R1) that is connected to said voltage regulator to adjust an output voltage of said voltage regulator (4:20-5:18); a switching element (Q3 Fig. 1) that is used to connect an

output voltage setting terminal (15V at terminal 24a) of said voltage regulator to a ground (through emitter of Q3) via a predetermined resistance (R2 Fig. 1); and a controller (microcomputer) that controls an on/off state of said switching element, wherein said controller switches said switching element to one of the on and off states so that the output voltage of said voltage regulator is reduced to a predetermined voltage which is lower than a preset power supply voltage (4:20-5:18), the predetermined voltage and the preset power supply voltage being functions of resistance values of the output voltage setting circuit (Q2, R1, with Q2 acting as an open circuit for the preset voltage and Q2, R1, with Q2 acting as an open circuit for the predetermined voltage).

Regarding claim **5**, see the rejection of claim 4 and note that Nagase further discloses:

Controller turns off said switching element so that the output voltage of said voltage regulator is set at the preset power supply voltage for enabling said at least one particular circuit (4:20-53), and turns on said switching element so that the output voltage of said voltage regulator is reduced to the predetermined voltage lower than the preset power supply voltage (4:54-5:18).

Regarding claim **6**, see the rejection of claim 4 and note that Nagase further discloses:

Predetermined voltage is substantially equal to a reference voltage (ground) of said voltage regulator, the reference voltage being lower than an operating voltage of the at least one particular circuit (camera does not operate with 0V, 5:11-18).

Regarding claim **8**, Nagase discloses:

A CCD driving system comprising: a CCD driving circuit that outputs a driving signal for driving a CCD (inherent in order to operate CCD); a timing generator that generates and outputs a pulse signal for driving said CCD driving circuit (timing generator 16 Fig. 1, 4:2-6); a voltage regulator (switching controller 22, Q1, T, D1, D2, C11, C21, L1, L2, C12, C22 Fig. 1) that supplies a preset power supply voltage to said CCD driving circuit and said timing generator; an output voltage setting circuit (Q2, R1) that is connected to said voltage regulator to adjust an output voltage of said voltage regulator; a switching element (Q3 Fig. 1) that is used to connect an output voltage setting terminal of said voltage regulator to a ground via a predetermined resistance (R2 Fig. 1); and a controller (microcomputer) that controls an on/off state of said switching element, said controller switches said switching element to one of the on and off states so that the output voltage of said voltage regulator is reduced to a predetermined voltage which is lower than the preset power supply voltage (4:20-5:18), the predetermined voltage and the preset power supply voltage being functions of resistance values of the output

voltage setting circuit (Q2, R1, with Q2 acting as an open circuit for the preset voltage and Q2, R1, with Q2 acting as an open circuit for the predetermined voltage).

Regarding claim **9**, see the rejection of claim 8 and note that Nagase further discloses:

Controller turns off said switching element so that the output voltage of said voltage regulator is set at the preset power supply voltage for enabling said CCD driving circuit and said timing generator (4:20-53), and turns on said switching element so that the output voltage of said voltage regulator is reduced to the predetermined voltage lower than the preset power supply voltage (4:54-5:18).

Regarding claim **10**, see the rejection of claim 8 and note that Nagase further discloses:

Predetermined voltage is substantially equal to a reference voltage (ground) of said voltage regulator, the reference voltage being lower than an operating voltage of said CCD driving circuit and said timing generator (camera does not operate with 0V, 5:11-18).

#### ***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims **3, 7, and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagase in view of Kondo (U.S. Patent No. 5,600,521).

Regarding claim **3**, see the rejection of claim 1 and note that Nagase is silent with regard to determining whether the particular circuit is in a normal or abnormal operating condition. Kondo discloses determining whether a circuit is in a normal or abnormal operating condition and when in an abnormal operating condition the power is reduced to a power that won't damage the circuit in (1:58-2:12). Kondo discloses in 2:3-9 that an advantage to doing so is that prolonged supply of power at the reduced level does not damage the circuit. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used Nagase's switch to reduce the power supply to the camera to 0V when it is determined that a circuit is operating abnormally.

Regarding claim **7**, see the rejection of claim 4 and note that Nagase is silent with regard to determining whether the particular circuit is in a normal or abnormal operating condition. Kondo discloses determining whether a circuit is in a normal or abnormal operating condition and when in an abnormal operating condition the power is reduced to a power that won't damage the circuit in (1:58-2:12). Kondo discloses in 2:3-9 that an advantage to doing so is that prolonged supply of power at the reduced level does not damage the circuit. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used Nagase's switch to reduce the power supply to the camera to 0V when it is determined that a circuit is operating abnormally.



Regarding claim **11**, see the rejection of claim 8 and note that Nagase is silent with regard to determining whether the CCD driving circuit is in a normal or abnormal operating condition. Kondo discloses determining whether a circuit is in a normal or abnormal operating condition and when in an abnormal operating condition the power is reduced to a power that won't damage the circuit in (1:58-2:12). Kondo discloses in 2:3-9 that an advantage to doing so is that prolonged supply of power at the reduced level does not damage the circuit. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used Nagase's switch to reduce the power supply to the camera to 0V when it is determined that the CCD driving circuit is operating abnormally.

***Allowable Subject Matter***

6. Claim **12** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim **12**, no prior art could be located that teaches or fairly suggests the timing generator holding the pulse supplied to a CCD driving circuit at a ground level when the output voltage of a voltage regulator is lower than a first voltage, which is lower than a preset power supply voltage and higher than or equal to a predetermined voltage in combination with the rest of the limitations of the claim.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICHOLAS G. GILES whose telephone number is (571)272-2824. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lin Ye/  
Supervisory Patent Examiner, Art Unit 2622